

ABSTRACT

An apparatus and a method for attaching filamentary members to a substrate are disclosed. The substrate includes a plastic layer and the apparatus includes an anvil, a needle and a swaging tool movable relatively to the anvil. The method includes the steps of penetrating the substrate with the needle to create an opening, positioning the filamentary member in the opening, and compressing the substrate between the swaging tool and the anvil so as to deform the plastic layer and swage the filamentary member to the substrate. The needle is heated to melt the plastic layer so that it fuses with the filamentary member upon swaging. Motion of the needle and swaging tool is controlled by cams under the command of a microprocessor control unit. A substrate to which filamentary members are swaged is also disclosed.